

WEBCON[®]

LOW-CODE, BUT BETTER.

WEBCON BPS 2021

Discover the possibilities of the latest platform version



WEBCON BPS 2021 - What's New?

WEBCON BPS 2021 is the latest version of the platform for digitizing and managing business processes. The improvements introduced in this version will allow to make applications even more intuitive and modern-looking, streamline application management, and facilitate application maintenance. We also introduced WEBCON BPS Designer Desk, a completely new web-based tool for collecting new project requirements and building prototype applications even faster than before. Designer Desk is targeted at business users and professional application builders alike.

We thank you for trusting our commitment to continuous improvement. This document will help acquaint you with everything brand new in WEBCON BPS 2021.

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DESIGNER DESK

Introducing **WEBCON BPS Designer Desk**

WEBCON BPS Designer Desk adds a completely new tool to your arsenal. It was designed to support the process of collecting requirements for new business applications, communicating the needs between business and IT departments, and rapidly prototyping desired solutions. It's there to speed up the application building process and increase organizational capacity in doing so.

WEBCON BPS Designer Desk allows to:

- collect requirements for an application, and be guided step-by-step in doing so,
- diagram and describe form behavior and task assignment logic,
- define the scope of integration with external systems,
- run and test a functional prototype application based on these specifications.

Some power users want to build simpler applications and test them out as prototypes as the first step along the process of building what will evolve into mission-critical applications. Doing so would make for better instructions/requests for IT and professional designers. While these prototypes might be immediately useable as-is, the prevailing expectation is that a prototype is the first step to being turned into a formal application by a professional (IT person, consultant, etc.) using WEBCON BPS Designer Studio.

Designer Desk is optimized for use as a first-step tool to be used by people closest to the business stakeholders. Thanks to WEBCON BPS Designer Desk, key business users can collect all important application parameters in a single place, and even run a prototype generated based on that work and test it in the well-known WEBCON BPS environment. That initial validation of assumptions and needs in turn provides IT department with complete, well-documented requirements.

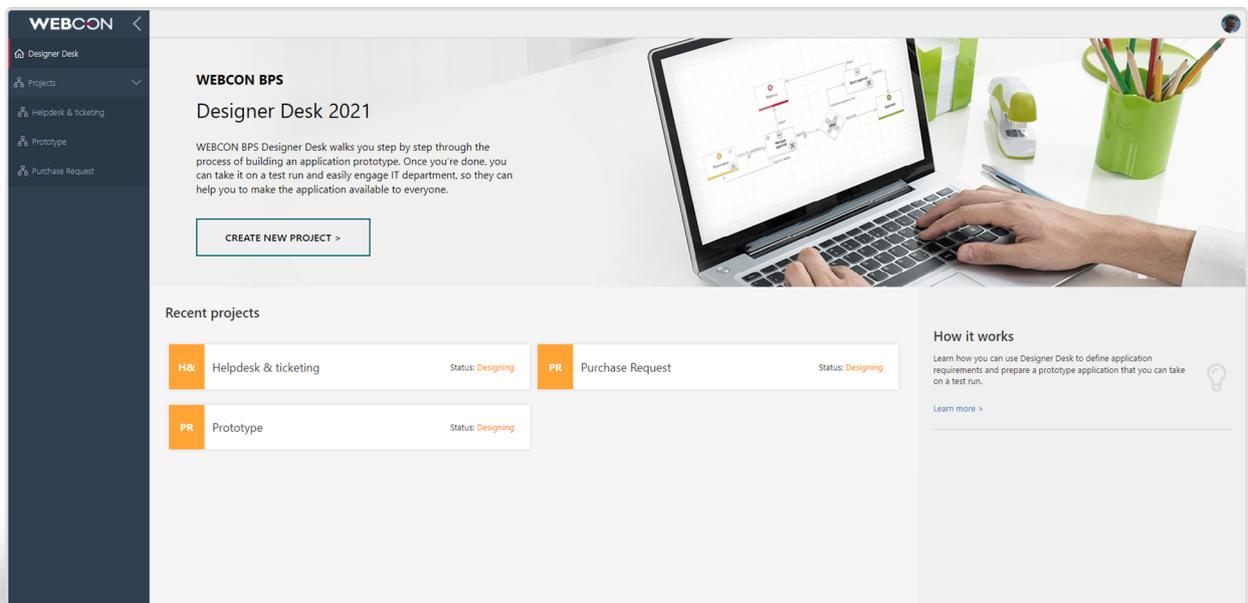
It solves the issue of allowing some "citizen developer" involvement in business solutions without needing to gradually turn every citizen into a professional developer. Designer Desk's feature set is inspired by Designer Studio, but it is pared down to avoid overwhelming non-professionals with an excessive array of options.

What's important is that the IT can take over and continue the configuration of the application created by business analysts, so the work once done is not lost, and the process of creating solutions is significantly accelerated.

WEBCON BPS Designer Desk is also perfect for DevOps scenarios, where the IT team creates applications side by side with business users. The visualization method adopted in the new tool is easy to understand, and the possibility of immediate prototype launch makes it easier to verify alternative requirements for the application.

The introduction of WEBCON BPS Designer Desk is the culminating piece of the idea for a comprehensive platform that supports every stage of creating business solutions:

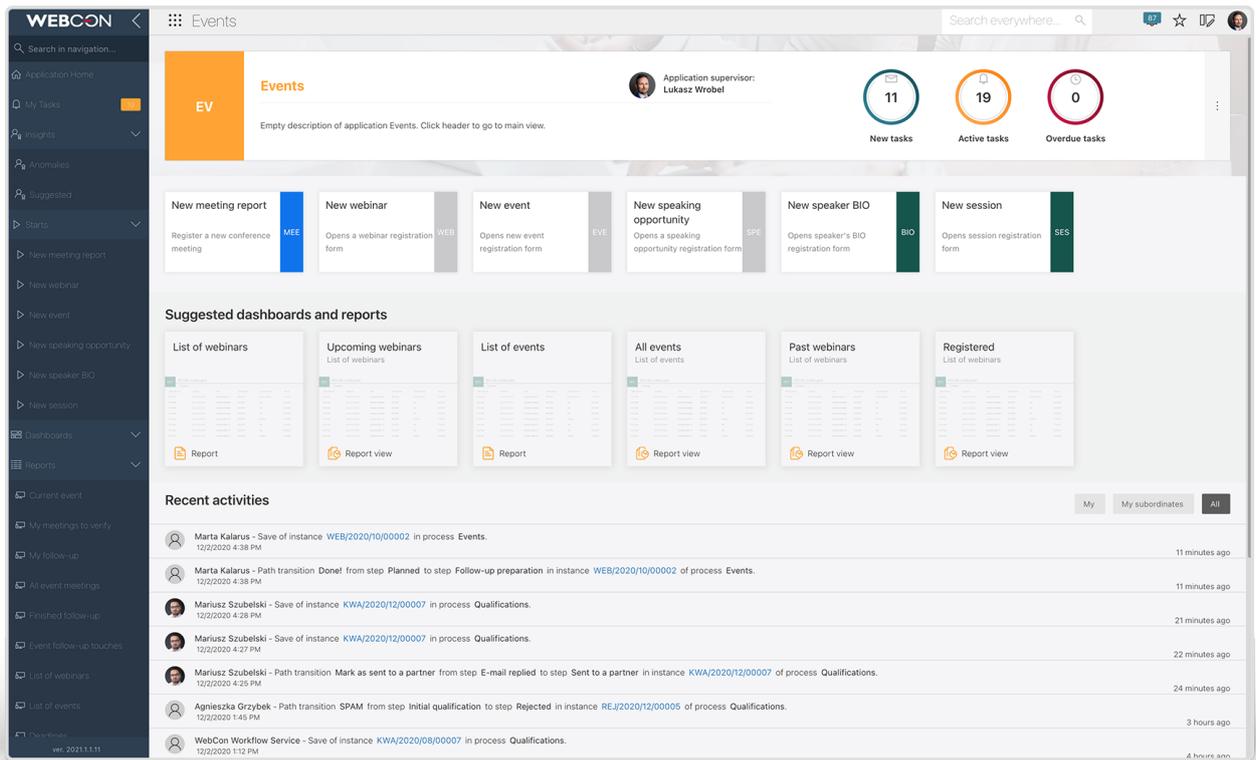
- from the initial collection of requirements, and the creation and testing of the prototype (now possible without the participation of the IT department),
- all the way through building a complete business application, integrating it with other systems used within the company and generating as-built documentation,
- up to the change management and application evolution, with a full support of the Dev-Test-Prod cycle, automatic generation of documentation for introduced changes, and the support for troubleshooting and maintaining applications created in this way.



CHANGES

Changes and improvements in WEBCON BPS Portal

We are introducing a refreshed WEBCON BPS Portal interface for 2021. When you upgrade the system to the new version, the platform appearance will be automatically updated and be visible to every user.



The layout has been enhanced, as has the design experience:

- it's a lot easier to manage the portal's logo within its configuration UI. Moreover, you can now set a custom background image for portal pages,
- you can now change the size of the application start button. We suspect that a large array of smaller-sized buttons will be perfect for applications that have a large number of workflows and workflow start options,
- the portal's home page now has a „Favorites” section. It should make it easier than ever for users to quickly reach their most important destinations,
- the application page (system dashboard) has always had a Suggested Elements section. Now, users can pin their favorite reports and dashboard to this section so they're always present. And it will no longer be empty when a user visits the page for the first time; new users will instead see the elements most often used across the entire organization.

Customer service

Contracts signed by me

Account manager	Instance number	Net Amount	Currency	Payment due	Step
Alice Smith	AGRMT/2020/06/00001	1,500.00	EUR	7/4/2020	Accepted
Jack Black	AGRMT/2019/10/00018	8,000.00	EUR	11/24/2019	Accepted
Tom Green	AGRMT/2019/10/00017	2,300.00	EUR	11/24/2019	Accepted
Alice Smith	AGRMT/2019/10/00015	500.00	EUR	11/22/2019	Accepted
Tom Green	AGRMT/2019/10/00014	2,000.00	EUR	11/22/2019	Accepted
Alice Smith	AGRMT/2019/10/00013	4,300.00	EUR	11/21/2019	Accepted
Alice Smith	AGRMT/2019/10/00012	1,000.00	EUR	11/20/2019	Accepted
Jack Black	AGRMT/2019/10/00011	5,600.00	EUR	11/18/2019	Accepted
Tom Green	AGRMT/2019/10/00010	4,000.00	EUR	11/18/2019	Accepted
Jack Black	AGRMT/2019/10/00009	500.00	EUR	11/18/2019	Acceptance

Reports can now make use of conditional column formatting. While it certainly makes it easy to format values with specific foreground/background colors, it even allows things like adding inline buttons, custom row-by-row icons, and Active Directory photos displayed next to usernames. It should make reports more attractive, understandable, and useful.

Step duration KPI's

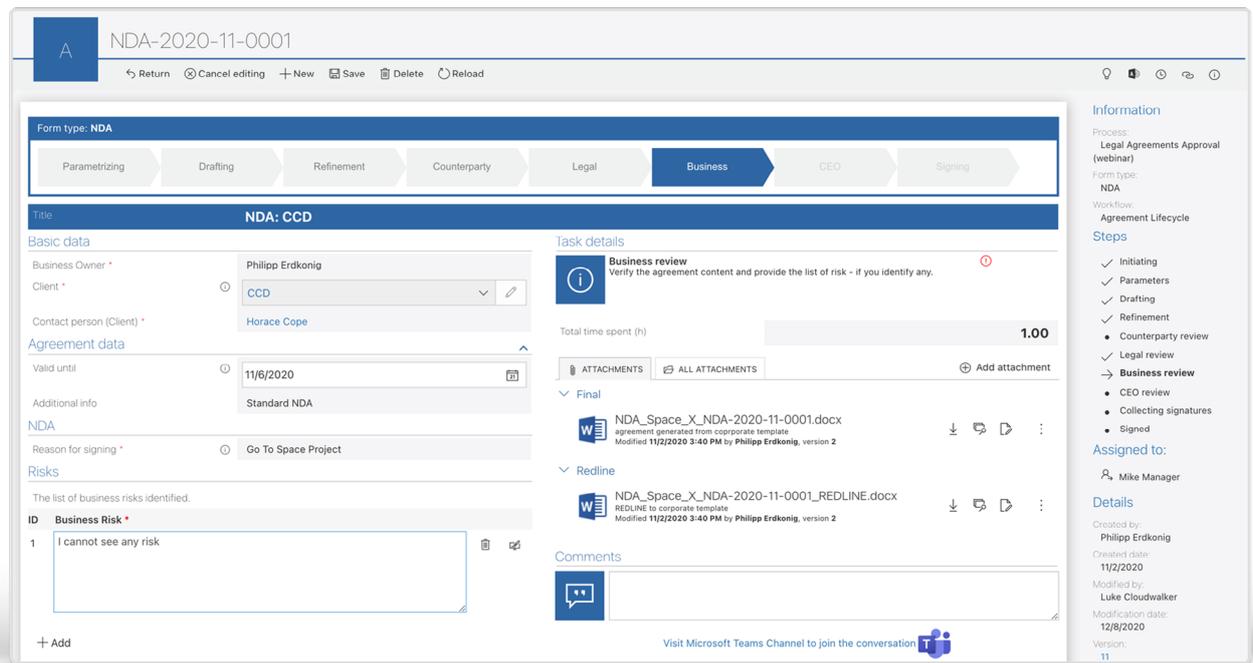
Refresh Processing times

WorkFlow / Step	Employee	Target	Last 30 days	Previous 30 days	All time average	Trend
Agreement Lifecycle						
Business review		2	28	15	7	▲
CEO review		-	-	16	3	—
Collecting signatures		-	-	0	21	—
Counterparty review		5	-	0	0	—
Drafting		0	-	22	12	—
Initiating		0	-	0	0	—
Legal review		2	33	8	14	▲
Parameters		0	-	5	8	—
Refinement		1	-	0	7	—

- The average duration falls within the expected timeframe
- The average duration falls within the expected timeframe but exceeded 90% of the allocated time
- The average duration exceeded the allocated time
- ▼ The average of the last 30 days decreased compared to the average of the time period between 30 and 60 days ago
- The average of the last 30 days did not change compared to the average of the time period between 30 and 60 days ago
- ▲ The average of the last 30 days increased compared to the average of the time period between 30 and 60 days ago

The new Vacation Leave form control clearly visualizes the schedule of both claimed and planned absences within the process you designate for handling vacation leave requests. It can also display days available and days used so far. Leave information can follow the organization's hierarchy to allow filtering of and navigation to specific employee lists.

New form field type – HTML



The new HTML control makes it possible to create custom form controls using HTML and JavaScript, something previously only possible with .NET code components. HTML controls can interact with a form's behavior, including changes to other field controls.

Extension of item lists

Time spent			
Step	Timestamp	Time spent	Comment
^ Person: Horace Cope			
Content creation	5/8/2020 2:06 PM	90 (min)	client interview
Content review	6/10/2020 12:25 PM	45 (min)	review
		135 (min)	
v Person: Alice Well			
		180 (min)	
^ Person: Justin Case			
Content creation	5/6/2020 1:17 PM	45 (min)	initial scoping
Content creation	5/8/2020 2:09 PM	90 (min)	client interview
Content creation	6/10/2020 6:08 PM	180 (min)	document drafting
		315 (min)	
Sum		630 (min)	

The Item List control now allows rows to be grouped by a selected column. This grouped view can be set independently for each step in a process, allowing the list's appearance and behavior to adapt to each step's task requirements.

Section expansion

Registration data

Registered on: 12/9/2020

Registered by: Luke Cloudwalker

Leave request data

Leave type: Sick leave

Applied for: Luke Cloudwalker

Substitute: Tom Green

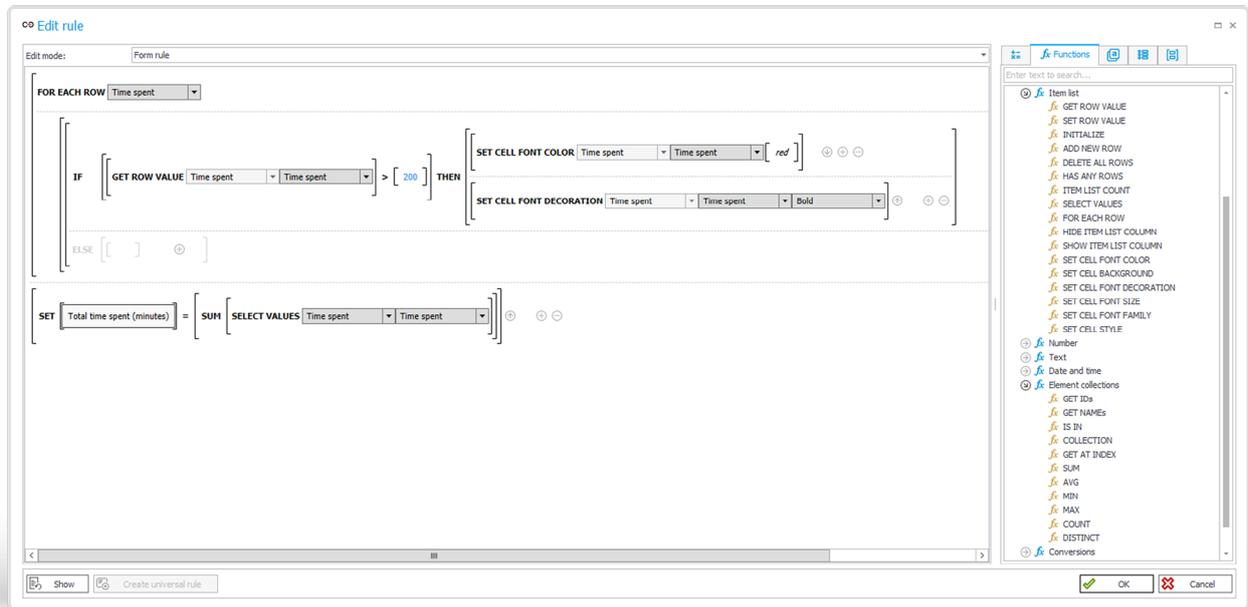
Reviewer: Matt Manager

Dates

From: 12/8/2020 To: 12/11/2020 Number of days: 4

A form section can be switched to show its embedded fields in landscape mode, in which fields are displayed side by side with labels above the field contents.

New form rules



New formulas and other options have been added to form rules, both to make some kinds of rules easier to define and to allow entirely new possibilities.

It's now much easier to, within form rules, access the values of individual columns in an item list (SELECT VALUES), calculate aggregate values for columns (SUM, AVG, MIN, MAX, COUNT, DISTINCT), manipulate the contents of item lists (FOR EACH ROW), and modify item list cell styles (SET CELL STYLE and derivatives).

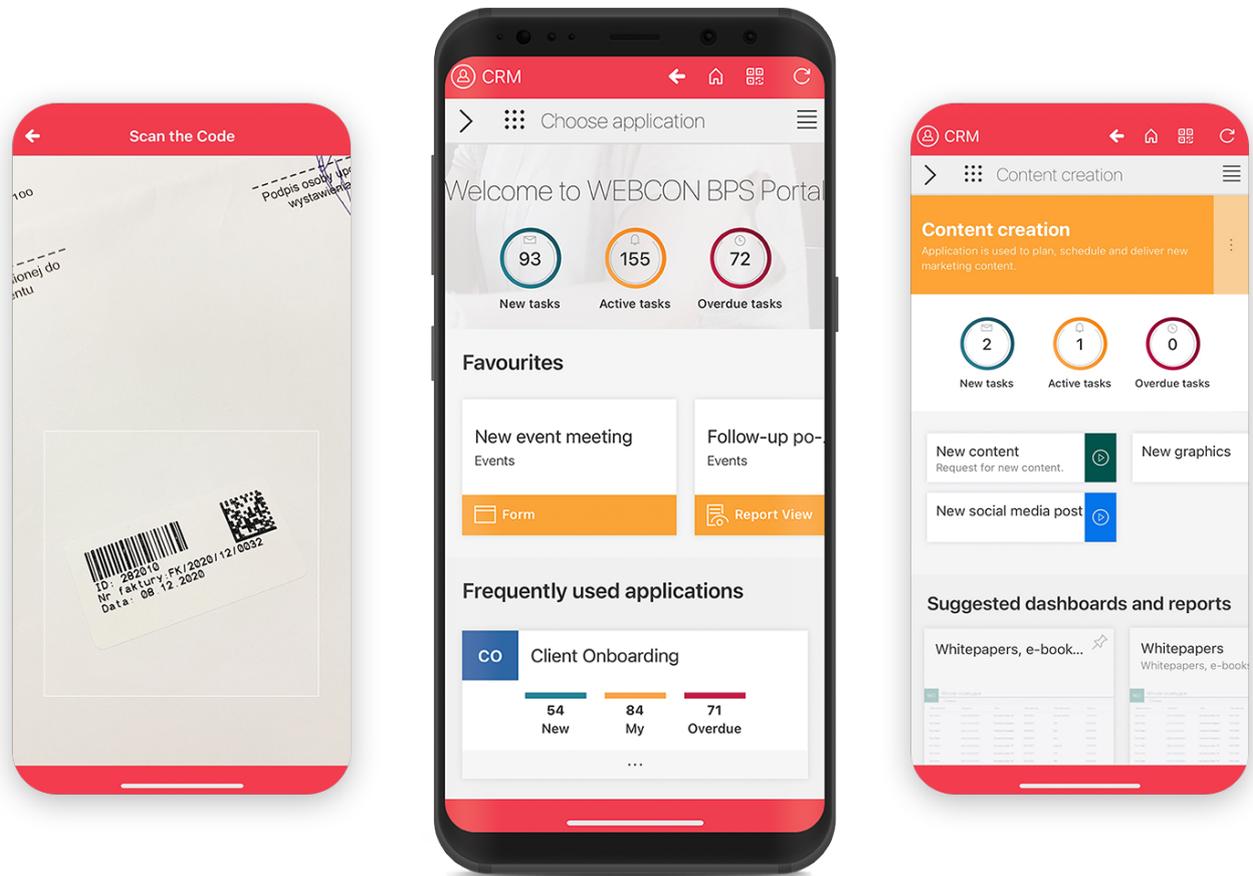
We also introduced a SET FOCUS function to move the current input to location to specific form fields. It should greatly enhance the ability to complete forms using only the keyboard.

New text manipulation functions allow combining multiple values into a single string (CONCAT), and separating a string into a collection of elements based on a specified separator (SPLIT).

We also introduced an ATTACHMENTS COUNT function that returns the number of attachments in a form.

CHANGES

Changes to mobile applications



The WEBCON BPS mobile applications for Android and iOS have been thoroughly rebuilt to reflect changes to the WEBCON BPS Portal and to standardize the user experience between the Web portal and mobile devices. We have also added native barcode support for iOS devices, including the ability to search for a workflow element based on a scanned barcode.

Improvements to application maintenance and troubleshooting

Both because you asked for it and because we wanted it as well, a lot of effort went into improving the mechanisms for diagnosing portal and form behavior. Thanks to the changes introduced in 2021 version, it's now much easier to identify the source of possible configuration problems and restore an application's expected functionality as soon as possible.

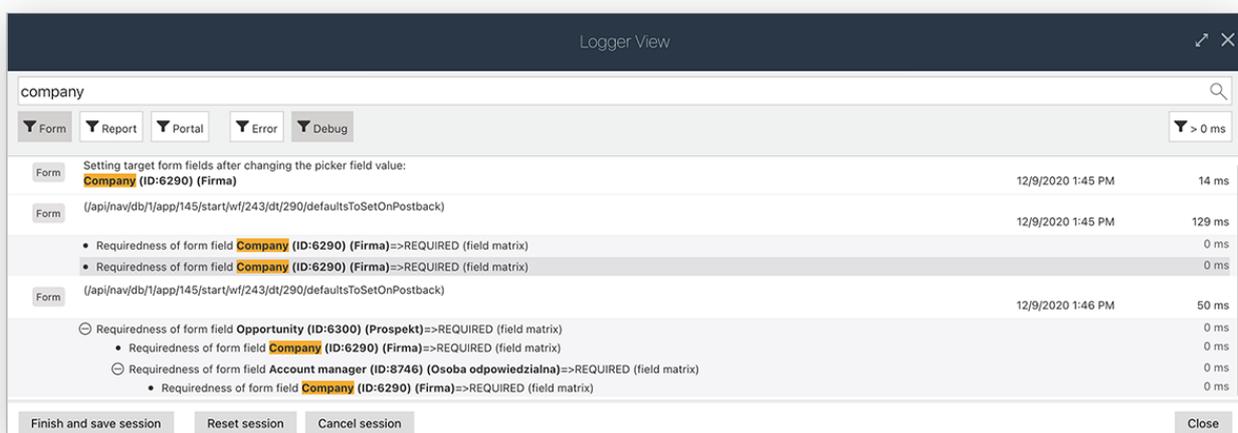
Enabling the diagnostic mode in WEBCON BPS Portal starts logging events at the user interface level and gives access to the diagnostic viewer, which enables:

- viewing warnings and error messages,
- viewing form rendering logs, including setting default values for form fields, executing business rules, form rules, or setting field values by selecting a checkbox value,
- searching for logs related to the indicated form fields,
- searching for objects whose rendering time exceeds the specified value.

The introduced changes allow to easily determine the reasons for the lack of visibility and editability of form fields, or whether they are - or not - due. It is also possible to quickly identify the configuration element responsible for the values received by the form field.

Another, greatly improved scenario is performance analysis; you can display the duration of each operation (from the time a request is sent to the data source until the execution of business rules) in order to identify user experience bottlenecks.

In addition to that extended scope of information being presented while in diagnostic mode, we are also introducing the option to save the recorded session and make it available to the system administrator. In the event an error is encountered, the user can enter diagnostic mode and have all operations recorded and made available to the administrator for later review.



The screenshot shows the 'Logger View' interface with a search bar containing 'company'. Below the search bar are tabs for 'Form', 'Report', 'Portal', 'Error', and 'Debug', along with a filter set to '> 0 ms'. The log entries are as follows:

Form	Message	Timestamp	Duration
Form	Setting target form fields after changing the picker field value: Company (ID:6290) (Firma)	12/9/2020 1:45 PM	14 ms
Form	(/api/nav/db/1/app/145/start/wf/243/dt/290/defaultsToSetOnPostBack)	12/9/2020 1:45 PM	129 ms
	• Requiredness of form field Company (ID:6290) (Firma)=>REQUIRED (field matrix)		0 ms
	• Requiredness of form field Company (ID:6290) (Firma)=>REQUIRED (field matrix)		0 ms
Form	(/api/nav/db/1/app/145/start/wf/243/dt/290/defaultsToSetOnPostBack)	12/9/2020 1:46 PM	50 ms
	○ Requiredness of form field Opportunity (ID:6300) (Prospekt)=>REQUIRED (field matrix)		0 ms
	• Requiredness of form field Company (ID:6290) (Firma)=>REQUIRED (field matrix)		0 ms
	○ Requiredness of form field Account manager (ID:8746) (Osoba odpowiedzialna)=>REQUIRED (field matrix)		0 ms
	• Requiredness of form field Company (ID:6290) (Firma)=>REQUIRED (field matrix)		0 ms

At the bottom of the window, there are buttons for 'Finish and save session', 'Reset session', 'Cancel session', and 'Close'.

Additional new and improved functionalities

WEBCON BPS 2021 contains a series of improvements that extend the platform's functional capabilities, facilitate creating/maintaining applications, and allow for better use of popular IT technologies.

OpenID authentication

In addition to the existing in-the-box support for Windows Active Directory, Azure AD, ADFS, etc., we have added compatibility with the OpenID Connect standard when authenticating WEBCON BPS Portal users. This makes it possible to (among other things) directly authenticate users using Google, LinkedIn, or Microsoft Personal IDs – without the need to run the WEBCON BPS Auth component.

This functionality is a particularly great feature for companies that allow external users to access the application (e.g., in B2B and B2C models), as well as organizations that use neither Windows Active Directory nor Azure Active Directory.

Additionally, we've also enabled independent configuration of the login provider for WEBCON BPS Portal and WEBCON BPS Designer Studio users; in most configurations this will allow you to skip the additional login window.

Communication and ergonomics of WEBCON BPS Designer Studio

For standalone installations (not tightly coupled to Microsoft SharePoint Foundation or Microsoft SharePoint Server) we have changed the way WEBCON BPS Designer Studio communicates with the system engine (server). The direct database connection used in the past has been completely replaced by communication based on web services.

As part of the work, we have also added the ability to start WEBCON BPS Designer Studio directly from the WEBCON BPS Portal, maintaining the context of the application while doing so – meaning that Designer Studio will open and load the application currently open in the Portal. We also added the option to install (and automatically update) WEBCON BPS Designer Studio directly from the Portal.

Note: Microsoft SharePoint-coupled installations will still use direct database communication between Designer Studio and the system engine.

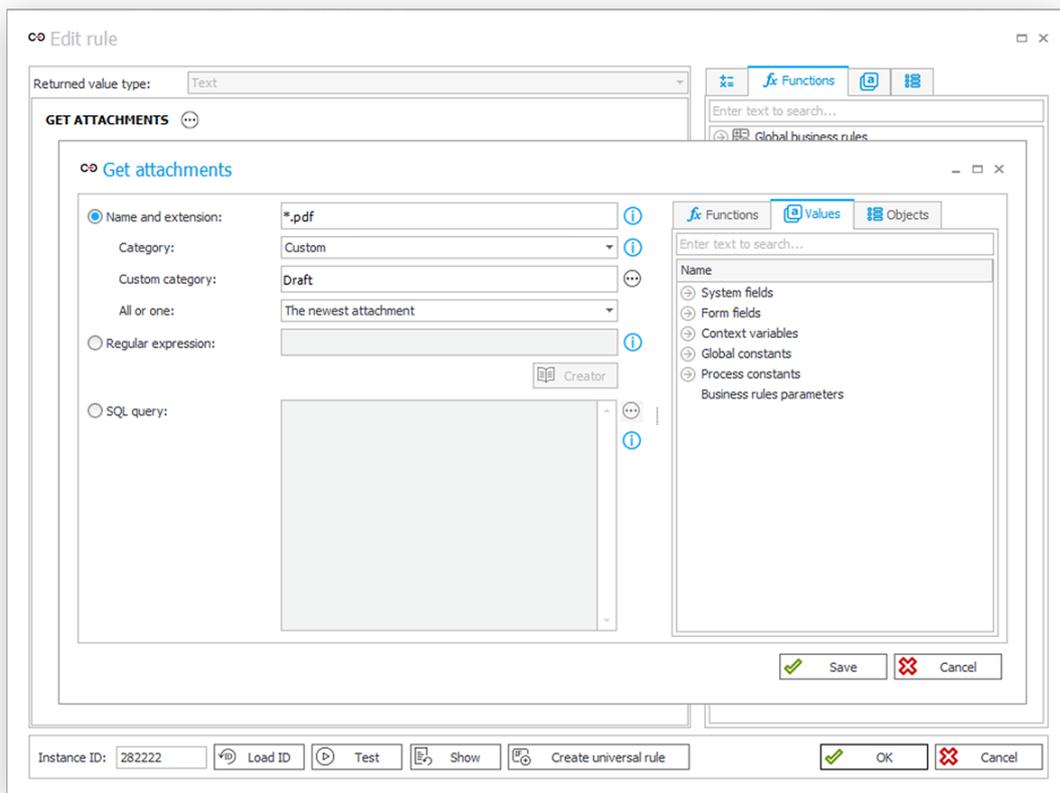
New business rules

In addition to the new form rules (described earlier in this document alongside other changes to forms), we also added a number of new business rules.

Item list handling has been improved with functionality that allows retrieving all the values of the selected column (SELECT VALUES), which can be used in conjunction with the aggregate operators SUM, AVG, MIN, MAX, COUNT and DISTINCT. Thanks to this, the creation of conditions related to item list statistics (such as: if the sum of the table values exceeds N then ...) no longer requires the use of a database query.

We also added new rule functions that allow you to operate on strings. Merging them is now possible thanks to the CONCAT function (significantly increasing the clarity of the record, in relation to the previously necessary use of the + operator and avoiding the need to convert the values to the text type before making the connection).

Separating text field values becomes much easier with the new SPLIT function, which creates a collection based on the selected separator (such as a comma, semicolon, or #). One can then use the GET AT INDEX function to obtain the value of a specific element in that resulting collection.



The newly added ATTACHMENTS COUNT functionality returns the number of attachments of the current form, and the GET ATTACHMENTS functionality retrieves the attachment ID. Its configuration is similar to the configuration of actions operating on attachments, and allows you to easily determine attachment types, the groups they come from, etc.

An extended/enhanced REST web service action

WEBCON BPS 2021 introduces significant improvements to configuring and invoking REST web service calls.

To make the action more useful more web services, we are introducing a new authentication flow based on the OpenID standard.

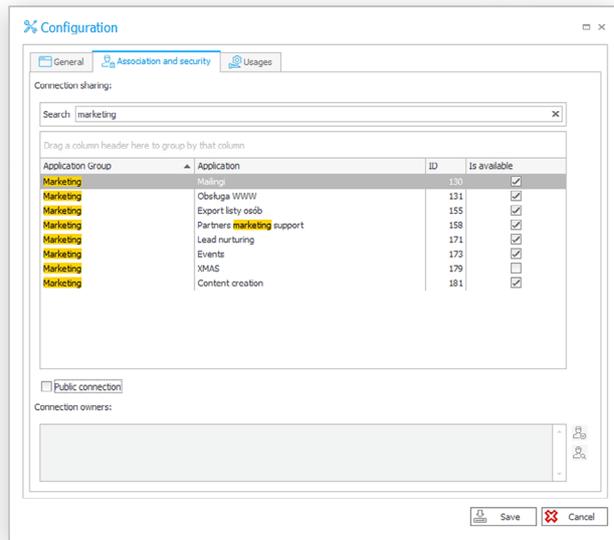
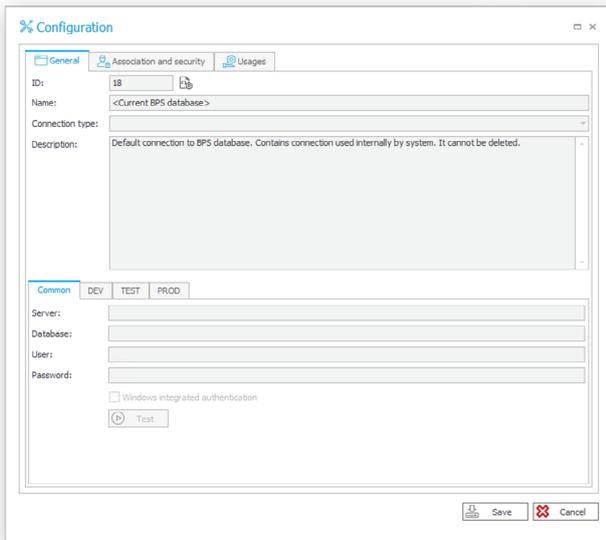
The new version of the action allows a designer/developer to independently configure handling different responses from the web service depending on its result (at the very least, success or failure).

We also added support for adding custom headers and the Multipart file upload format.

Moreover, support for OpenAPI (a.k.a. Swagger) specification will make configuring REST web service calls is significantly quicker and easier.

New possibilities for managing data sources

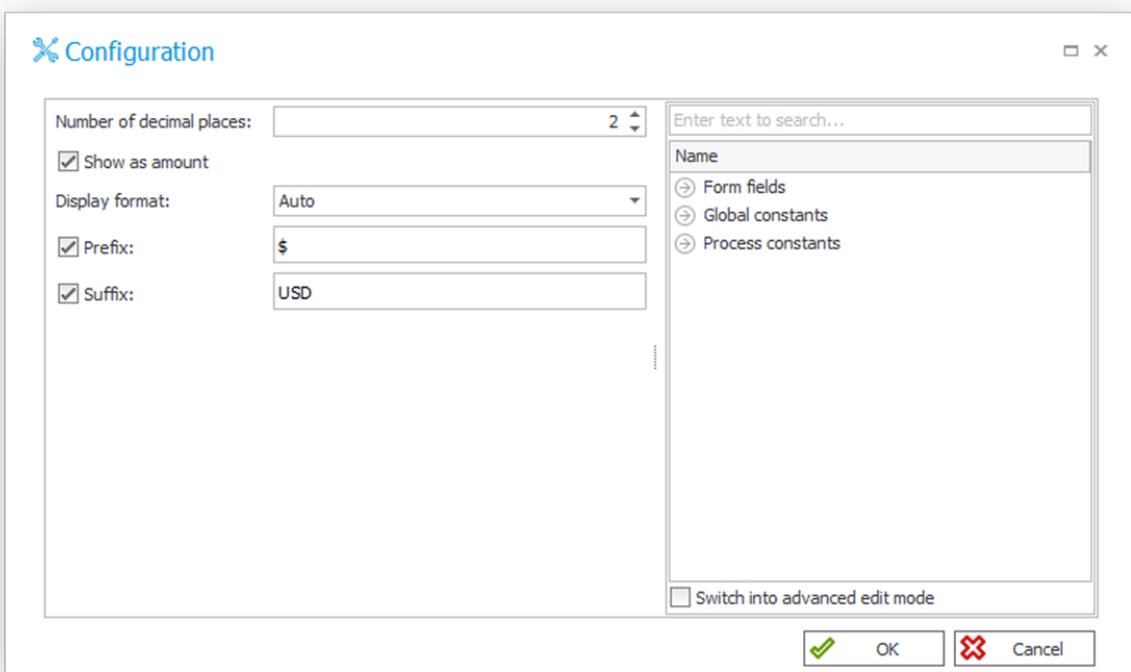
We've observed WEBCON BPS being used increasingly frequently in large IT teams, and where one environment might amass a very large number of data sources. As such, where individual solutions are created in subgroups using WEBCON BPS Designer Studio in Lite mode, the platform global administrator now has the option to assign specific applications to specific data sources.



Expanding multilingual support

Support for multilingualism is an important priority in the development of the WEBCON BPS platform. In the previous version, we added, among others, support for multilingual data sources, but now we are enriching the configuration with the possibility of setting a preferred global language and languages of individual applications for new system users.

We have also introduced a new system language – British English, which is characterized by the European date format standard.



Improved export-import mechanism

The export-import mechanism is an integral part of WEBCON BPS, which enables the automatic and comprehensive transfer of applications (and application changes) between Development, Testing, and Production environments.

WEBCON BPS 2020 introduced lightweight process types known as dictionaries and template libraries so applications could include containers for reference data (lookup values, document generation templates). Deploying an application would also deploy the definitions of its dictionaries and template libraries.

Given that dictionaries and template libraries often contain assets that are an essential part of an application, WEBCON BPS 2021 can now transfer not only dictionary definitions, but also their contents as well. This means that a freshly deployed application will already contain its essential lookup data (e.g. a priority list, a list of purchase categories, etc.) and template files used for document generation actions.

We also introduced the option to include BPS user group definitions as part of an application export/import package, increase the efficiency of handling of exports/imports larger than 250 MB, and optimized the overall efficiency of exporting/importing packages. We also expanded logging of the process.

Optimized platform performance

The introduction of a new mode of handling timeouts allows for the immediate launch of assigned actions and starting paths; thanks to this, (in some scenarios) the handling of their execution queue has been significantly accelerated.

We have also changed the method of starting the SOLR server (responsible for the search engine) and added new configuration options that allow options like omitting attachment content from indexes and/or specifying which form fields will be indexed and made searchable.

In WEBCON BPS 2021, we also carried out a number of improvements aimed at optimizing the overall performance of the platform and improving its speed of operation in specific infrastructure conditions, including the service related to handling queues.

Improved API interface

An important part of WEBCON BPS is its set of web services, which – among other things – enable information exchange between WEBCON BPS and external IT systems. In WEBCON BPS 2021, we expanded the webAPI to include access to information used by the Microsoft BOT Framework to create friendly links (e.g. for Action Cards in the Microsoft Teams environment).

Furthermore, it's now possible to:

- update connection data (in particular, changing authentication data – credentials and such), which is of particular importance in environments where such operations require automation and must be carried out in a high security regimen, without making login data available to administrative users,
- manage BPS user groups (including creating new groups and add/remove members),
- operate on attachments (adding, removing, changing attributes).

The system's API has also been extended to add integration support for digital signature platforms; examples of SDK add-ons enabling connection to DocuSign, Adobe Sign, Skribble, and Autenti have been published on GitHub under an Open Source license, both as source code and in a ready-to-use compiled version. Additionally, we have published articles describing their configuration in more detail to the WEBCON community site (<https://community.webcon.com>) in the Knowledge Base area.

WEBCON BPS 2021's API also contains enriched functions for exporting/importing process form (workflow instance) data (header, item lists, attachment lists, and workflow instance metadata). We have also published an example of a data import tool using this API on the GitHub platform; it's useable in its own right as-is, but it's of even greater value and example of how to use this API.

WEBCON BPS SaaS

As is true of the server-based 2021 version, we have added the option to launch WEBCON BPS Designer Studio directly from the WEBCON BPS Portal. As Designer Studio is Windows desktop software, the first time the user launches Designer Studio this way it will download a one-time installation of Designer Studio (updates are performed automatically); subsequent requests to launch Designer Studio will open it and load the app that was open in the WEBCON BPS Portal.

We also added the ability to use OCR functionality by SaaS Foundation and Enterprise customers (the OCR engine was already available to the Enterprise Plus plan).

In case you have questions, [please contact us.](#)